

**DESCRIPTION OF TRAVEL TIME COMPONENTS**

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## APPENDIX 3.2-B

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**Air and Rail Travel Time Calculation**

Total travel times were computed based on the following components.<sup>1</sup> The total travel time is calculated as follows:

$$\text{Access Time} + \text{Terminal Time} + \text{Line-Haul Time} + \text{Arrival Time} = \text{Total Travel Time.}$$

**A. ACCESS TIME**

*Access time* is the average travel time from the point of origin (i.e., home or work) to the departure terminal. Travel between downtown San Francisco and San Francisco International Airport (SFO) on San Francisco Bay Area Rapid Transit District (BART) trains and between downtown Los Angeles and Burbank Airport (BUR) on Metrolink is about the same as highway travel time. Access time was calculated for each city pair based on weighted average travel times to the various regional airports and train stations.

**B. TERMINAL TIME**

*Terminal time* is the time spent at either the departure or arrival terminal. The total terminal time for both the air and high-speed train (HST) modes ranged from 18 to 36 mins, based on station location (urban or rural) and trip purpose (business or non-business). Terminal time is the sum of the following components.

Transfer from Access

The transfer from access mode depends on the time it takes a passenger to leave each access mode or the time it takes for a passenger to leave each access mode to reach the check-in counter, and the mix of modes used to get to the station/airport. HST station and airports in the Los Angeles and San Francisco Bay Areas were assumed to be larger than HST stations and airports in the other corridor cities. Other corridor city airports and HST stations were estimated to require less transfer from access time, with HST stations requiring less time than airports because of their relative compactness. The transfer from access time ranged between 4 and 7 mins, depending on location and trip purpose.

Check-in Time

The check-in time at HST stations was assumed to be shorter than at airports because storage capacity is sufficient on trains to allow passengers to carry on even large suitcases. The time saved for HST over air travel for business travelers would be small because most business air travelers carry on their luggage. However, time saved by leisure travelers who check luggage when flying would range from 3 to 4 mins, depending on location and trip purpose.

Walks to and from Gates

The walks to and from gates or platforms were assumed to be shorter in the HST stations because they would generally be smaller than airports. This time ranged from 2 to 5 mins, depending on location and trip purpose.

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<sup>1</sup> California High Speed Rail Authority, 2000, *The Independent Ridership and Passenger Revenue Projections for High Speed Rail Alternatives in California*.

Baggage Pick-Up

Baggage pick-up varies between mode and trip purpose for the same reasons that check-in time varies. Baggage pick-up time varies from 1 to 7 mins, based on location and trip purpose.

Transfer to Egress

The transfer to the egress mode of travel mirrors the transfer from access mode of travel. This time ranged from 4 to 7 mins, based on location and trip purpose.

**C. LINE-HAUL TIME**

*Line-haul time* is the time that an airplane or HST is in motion between gates or stations. For this analysis, the line-haul travel times between city pairs are summarized in Appendix 3.2-A.

**D. ARRIVAL TIME**

*Arrival time* is the average travel time from the arrival terminal to the final destination. Travel between downtown San Francisco and SFO on BART and between downtown Los Angeles and BUR on Metrolink is about the same as travel by highway. This number was calculated for each city pair based on weighted average travel times to the various regional airports and train stations.